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**ELECTRICAL CIRCUIT AND METHOD FOR TESTING ELECTRONIC
COMPONENT**

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Field of the Invention

The invention relates to an electrical circuit and to a method for testing electronic components.

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Background

When electronic components are tested, testers are frequently used which are equipped with the electronic components to be tested. These testers generate a wave-shaped test signal which is applied to the electronic component to be tested in each case. In dependence on this input signal, the electronic component generates a dynamic digital response in the form of a data record which can be checked in various ways.

One possibility for evaluating this data record is represented by the evaluation in the frequency domain, for example by means of a Fourier transform. However, this evaluation uses a large amount of computing power and cannot, therefore, be executed during the run time of the test.

A further possibility for evaluating the data record generated by the electronic component is represented by the evaluation in the time domain.

The computing method of sine wave fitting represents one evaluation method conceivable in this respect. The sine wave fitting method, too, requires a considerable amount of computing power. The data acquired cannot be evaluated during the run time, either. Instead, the entire data record must first be acquired and then supplied to a postprocessing unit. This is associated with a long measuring time and high measuring costs.

An alternative method for evaluation in the time domain is represented by the use of digital filters, the complexity of which, however, is relatively high.

The use of such digital filters necessitates high amounts of circuit area. The circuit area needed for digital filters is frequently larger than the circuit area for the electronic components to be tested.